

CLAIMS

1. Glass for a multilayer film filter including:

B_2O_3 , Na_2O , K_2O , MgO and Al_2O_3 , wherein

5 the glass contains a partial crystal, and a mean linear expansion coefficient of the glass is not lower than $125 \times 10^{-7} K^{-1}$ in a temperature range of $50^\circ C$ to $150^\circ C$.

2. The glass for the multilayer film filter according

10 to claim 1, wherein

the partial crystal is a potassium aluminum silicate base crystal.

3. The glass for the multilayer film filter according

15 to claim 1, wherein

a SiO_2 content is not less than 37 mol% nor more than 43 mol%;

a B_2O_3 content is not less than 2 mol% nor more than 5 mol%;

20 a Na_2O content is not less than 5 mol% nor more than 20 mol%;

a K_2O content is not less than 7 mol% nor more than 20 mol%;

a sum of the Na_2O content and the K_2O content is
25 not less than 21 mol% nor more than 27 mol%;

a MgO content is not less than 21 mol% nor more than 37 mol%; and

a Al_2O_3 content is not less than 3 mol% nor more than 10 mol%.

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4. A method for manufacturing glass for a multilayer film filter, the method comprising:

A) preparing glass by cooling and solidifying a glass melt made up of SiO_2 , B_2O_3 , Na_2O , K_2O , MgO and Al_2O_3 ;

10 B) immediately cooling the glass slowly;

C) heating the slowly cooled glass up to a temperature higher than a glass transition temperature;

D) keeping the heated glass at the temperature higher than the glass transition temperature for a fixed
15 period of time;

E) slowly cooling the glass kept at the temperature higher than the glass transition temperature for the fixed period of time so as to obtain partially crystallized glass, wherein

20 the keeping temperature in step D and a slow cooling rate in step E are so set as to make a mean linear expansion coefficient of the partially crystallized glass not lower than $125 \times 10^{-7} \text{K}^{-1}$.

25 5. The method for manufacturing glass for the

multilayer film filter according to claim 4, wherein

the keeping temperature in step D and the slow cooling rate in step E are so set that the partially crystallized glass with a thickness of 1 mm has a
5 transmittance of not less than 97% in a wavelength range of 1300 nm to 1600 nm.